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SIDENSE CORP.

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

SIDENSE CORP.,
a Canadian corporation,

Plaintiff,

v.

KILOPASS TECHNOLOGY, INC.,
a California corporation,

Defendant.

Case No. 3:14-cv-02238-SI

FIRST AMENDED COMPLAINT FOR MONOPOLIZATION AND ATTEMPTED MONOPOLIZATION PURSUANT TO SECTION 2 OF THE SHERMAN ACT (15 U.S.C. § 2)

[DEMAND FOR JURY TRIAL PURSUANT TO FED. R. CIV. P. 38(b)]

Original Complaint Filed: May 14, 2014

Plaintiff Sidense Corp. ("Sidense"), for its First Amended Complaint ("FAC"), complains of defendant Kilopass Technology, Inc. ("Kilopass" or "defendant") and alleges as follows:

I. NATURE OF THIS ANTITRUST ACTION

1. Sidense brings this action to remedy the profound and debilitating harm it has sustained as a result of Kilopass' predatory and exclusionary actions, in violation of federal antitrust law, with the goal of harming competition in the market for standard complimentary metal-oxide-semiconductor logic ("CMOS") embeddable antifuse one-time programmable (OTP) nonvolatile memory (NVM) technology and thereby preserving Kilopass' dominance of that market, by materially harming and/or eliminating its primary competitor in that market, i.e. Sidense.

2. As the Federal Circuit explained, "Memory cells use transistors to store information. NVM memory consists of memory devices that retain their information (or state) when power is removed." Sidense and Kilopass are direct competitors who develop antifuse NVM IP technology designs and license those designs to customers who use the designs to build CMOS integrated circuits with embedded "antifuse" NVM arrays that include rows and columns of memory cells. "Antifuse" programming involves a permanent structural change made by subjecting an individual memory cell to programming voltage, which melts and then recrystallizes to form a conductive channel. Once programmed, an antifuse memory cell cannot be un-programmed.

3. Sidense was founded in 2004, and by 2010 had become increasingly recognized as a leading innovator in the emerging market for OTP NVM IP. Sidense's 1T-Fuse™ provides small footprint, low power, fast access times, high density, and high reliability OTP NVM IP. Sidense licenses its NVM technology to its customers – chip designers and chipmakers who employ the Sidense NVM technology in a variety of integrated circuits used in consumer electronics products such as smartphones and set top boxes.

4. Sidense delivers its NVM technology to customers in the form of a Macro Integration Kit that includes datasheets, application notes, integration guidelines, and all technical models and files needed to integrate a particular Sidense memory array into the customer's

integrated circuit. Sidense and the customer transact a license agreement on terms that include a license fee and a royalty and the license could be for single use, multi-use, unlimited-use or subscription.

5. Kilopass dominates the market for CMOS embeddable antifuse OTP NVM IP. In 2005, almost immediately after seeing publication of Sidense's first international patent application, Kilopass began plotting to block Sidense's progress with its patent portfolio. However, Kilopass' outside patent attorney at the law firm Perkins Coie advised Kilopass that Sidense does "NOT infringe [Kilopass'] claims literally" and "that [Sidense has] redesigned [its] memory cell to avoid infringement of our patents. Or at least make our case much tougher."

6. Nonetheless, in 2008, Kilopass hired a new CEO who set Kilopass on a path to use the litigation process itself, rather than the outcome of that process on the merits, to preserve and/or obtain a monopoly in the CMOS embeddable antifuse OTP NVM IP market by destroying or materially damaging Sidense as a competitor.

7. Undeterred by Kilopass' patent counsel's negative infringement advice, Kilopass undertook to locate litigation counsel and then filed a lawsuit against Sidense alleging that it infringed three Kilopass patents.

8. Kilopass specifically intended that its baseless lawsuit and proceedings in this Court would chill competition in the market by preventing Sidense from competing and by stifling entry and innovation from other would-be competitors.

9. Kilopass' sham lawsuit has failed. Sidense defeated the patent infringement lawsuit on summary judgment, which the Federal Circuit summarily affirmed in a one-word opinion. Kilopass' inconsistent positions and shifting theories demonstrated the baseless nature of its claims. Indeed, Kilopass continued pursuing the litigation even after the USPTO patent examiner found two of the three asserted patents invalid; and Kilopass was only able to keep the third patent alive in the USPTO by taking a position wholly inconsistent with what it had told the district court, something the district court described as "gamesmanship."

10. Kilopass knew that its patent infringement claims were baseless, and the primary purpose of the lawsuit was not the outcome on the merits, but instead the harassment and burden

on and expense to Sidense caused by the litigation process itself in an attempt to interfere directly with Sidense's actual and prospective business relationships.

11. Kilopass' scheme to destroy and eliminate Sidense and attempt to monopolize and/or monopolize the antifuse market almost worked. Sidense, which had been growing revenue each year, suddenly saw its growth stall and stay stalled for three years while Kilopass kept its baseless litigation alive. Not only did Kilopass' baseless patent litigation scare customers away from doing business with Sidense, Kilopass' onslaught forced Sidense to divert millions of dollars away from its marketplace and technological competition with Kilopass to ward off the litigation and the marketplace consequences of that litigation. Kilopass' blatant anticompetitive conduct also caused Sidense to lack capital funding and financial strength to qualify for certain prospective lucrative licensing opportunities. Sidense brings this action to hold Kilopass accountable for its unlawful and destructive attempt to extinguish its only significant antifuse competitor in pursuit and maintenance of a monopoly of the CMOS embeddable antifuse OTP NVM IP market.

II. THE PARTIES

12. Sidense is a Canadian Corporation with its principal place of business at 84 Hines Road, Suite 260, Ottawa, Ontario, Canada, K2K 3G3. Sidense's business is devoted to the design and licensing of CMOS embeddable antifuse OTP NVM IP. At no time has Sidense's share of this market exceeded about 30%.

13. Kilopass is a California Corporation with its principal place of business at 3333 Octavius Drive, Santa Clara, California 95054. Like Sidense, Kilopass also designs and licenses CMOS embeddable antifuse OTP NVM IP. Since entering the market after its founding in 2002, Kilopass' share of this market has been between about 70% and 100%.

III. JURISDICTION, VENUE AND INTERSTATE COMMERCE

14. This First Amended Complaint states claims for violation of the federal antitrust laws. This Court has subject matter jurisdiction over these claims under 15 U.S.C. §§ 15 and 26 and 28 U.S.C. §§ 1331 and 1337.

15. At all times relevant to these claims, Kilopass has engaged in and substantially affected interstate commerce and foreign import commerce all within the meaning of the Sherman

Act (15 U.S.C. § 2). Sidense and Kilopass purchase goods and supplies and license technology across state lines.

16. The violations of law described in this First Amended Complaint have been and are being carried out in the United States and in this judicial district. This Court has personal jurisdiction over Kilopass because it resides in this district. Venue in this judicial district is proper under 15 U.S.C. §§ 15 and 22 and 28 U.S.C. §§ 1391(c) and (d) because a substantial part of the events giving rise to the claims asserted arose in this district.

17. Intradistrict Assignment. This case is appropriately assigned to the San Francisco division because many of the facts alleged herein occurred in this division.

IV. FACTUAL BACKGROUND

Kilopass' Attorneys Advised that Sidense Does Not Infringe Kilopass' Patents

18. In 2005, Jack Peng, Kilopass' founder and the inventor on the three patents Kilopass asserted against Sidense, discovered an international patent application filed by Sidense relating to Sidense's NVM design. This application had two embodiments, one of which had two diffusions and one of which had but a single diffusion. This was Kilopass' first awareness of Sidense. Mr. Peng sent the patent application to Kilopass' CEO, CTO, and its outside patent attorney at the law firm Perkins Coie. Mr. Peng explained that Kilopass "did not file [a] dedicated patent" on the [single diffusion] design in Sidense's patent application, but that Kilopass "should [have] filed this patent [a] long time ago even though we were very busy." Mr. Peng explained, "Why we did not implement this cell in our product, [was] because this split gate [c]ell is not self-aligned, so their practical cell size will be larger than [o]ur 1.5T cell."

19. In other words, Mr. Peng informed Kilopass that he had not patented a Sidense-type (single-diffusion) cell and because it could not be self-aligned, Sidense's single diffusion memory cell was larger than Kilopass' commercial 1.5T memory cell. "Self-alignment" is a well-known semiconductor manufacturing technique in which the polysilicon gate of a semiconductor device serves as a mask in order to make the device small.

20. Mr. Peng's statements to Kilopass' CEO, CTO, and patent attorney were critical to

Kilopass' pursuit of Sidense. Kilopass' patents specifically stated that the claimed memory cell, which required two diffusions, i.e. "first and second doped semiconductor regions," was *smaller* than Kilopass' 1.5T commercial memory cell, whereas the statements by Mr. Peng, Kilopass' founder and the named inventor on all three patents asserted against Sidense, showed that Sidense's single diffusion memory cell was substantially *larger* than Kilopass' 1.5T memory cell. This, in turn, meant that Sidense's single diffusion memory cell was *substantially larger* than Kilopass' claimed two-diffusion memory cell claimed in Kilopass' patents.

21. This information was critical to Kilopass' desire to assert its patents against Sidense because, as Kilopass' attorneys advised, infringement by equivalence allows only an insubstantial difference between what the patent claims cover and what the patent owner may wish to accuse.

22. Shortly after conversing with Mr. Peng in 2005, Kilopass' patent attorney contacted Sidense to suggest that Sidense might be infringing Kilopass' patents. Sidense promptly responded with three reasons why its memory cell did not infringe, including that Sidense's memory cell did not have "first and second doped semiconductor regions" – referring to the fact that Sidense did not have a "first doped semiconductor region." After reviewing Sidense's response, Kilopass' patent attorney informed Mr. Peng and Kilopass' CEO and CTO that if Sidense had designed its memory cell as indicated "they would NOT infringe our claims literally" and that Kilopass "would have to go through a 'reissue' proceeding in the patent office that may take 2 years in order to modify our claims to include the situation where there is no first doped region. . . . The most crucial bit of information we need to find out is the design of their memory cell." In other words, the most "crucial bit of information" was whether Sidense's memory cell had one diffusion or two, i.e. whether it had a "first doped semiconductor region."

23. More than a year later, in June 2007, Kilopass obtained a diagram of Sidense's commercial NVM design, which confirmed that Sidense had designed its memory cell with only a single diffusion, just as Sidense explained in its response to Kilopass' letter. After reviewing Sidense's design, Kilopass' same outside patent attorney sent an e-mail to Kilopass officials stating: "My preliminary review of all the Sidense materials indicates that they have redesigned

their memory cell to avoid infringement of our patents. Or at least make our case much tougher."

24. Despite this advice from its patent attorney, Kilopass began shopping for patent litigation counsel. Kilopass interviewed patent litigators at the law firm Morrison and Foerster ("MoFo") who began preparation of a "preliminary" infringement chart. However, before MoFo completed the preliminary chart Kilopass abruptly told the lawyers to stop work. To justify their bill for services, the MoFo lawyers sent Kilopass the incomplete preliminary chart. This chart did not address how Kilopass could prevail despite the fact that Sidense's design resulted in "larger effective cell size" according to Mr. Peng, the named inventor on Kilopass' patents. Moreover, there is no evidence that Kilopass ever gave this critical piece of information to MoFo. Also, the MoFo claim chart, unsupported by an expert opinion, did not include any credible explanation of how the alleged replacement for the missing diffusion (STI, an insulator) could be equivalent to the missing diffusion (a conductor). Further, the MoFo patent litigators' advice as to infringement by equivalence, which was based upon a technical distinction, was not competent advice upon which Kilopass could have reasonably relied, as evidenced by the fact that Kilopass' technical expert for trial repudiated it.

Kilopass Sued Sidense For Patent Infringement Without Even Seeking Or Receiving Advice As To How Sidense's Single-Diffusion Cell, Despite Being Substantially Larger, Could Infringe By Equivalence

25. Before filing suit, no Kilopass lawyer or technical advisor ever explained how Sidense's single diffusion memory cell could infringe Kilopass' two-diffusion memory cell patents by equivalence despite being substantially larger than the claimed memory cell; or how the alleged replacement for the missing diffusion (STI, an insulator) could be equivalent to the missing diffusion (a conductor).

26. However, MoFo did tell Kilopass that infringement by equivalence required an insubstantial difference between what the patent claimed and what Kilopass wished to accuse of infringement.

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Faced with Increasing Competition from Sidense, Kilopass Undertook to Destroy Sidense, its Only Significant Competitor, to Attempt to Monopolize and/or Monopolize the Relevant Market

27. In early 2008, Kilopass began to encounter stiff competition from new rival Sidense.

28. Kilopass and Sidense were at that time the only companies offering antifuse OTP NVM IP technology.

29. Antifuse has advantages over other types of OTP NVM IP, such as in certain smartphone and set top box applications, including that it is field programmable (i.e. can be programmed in the field, not just in the factory) and, as a practical matter, it is impossible to reverse engineer to learn the data programmed in it.

30. Kilopass was aware that Sidense's technology had significant advantages over Kilopass' technology, especially in the smaller area of the integrated circuit (chip) that a given Sidense memory array occupied, i.e. the so-called "die area," compared to the much larger die area of a comparable Kilopass memory array, and this had put Kilopass on the defensive.

31. However, Kilopass told prospective customers that Kilopass had built and tested the Sidense technology and found it could not be commercially viable, even though Kilopass had never conducted tests on a Sidense product that might lead to such a conclusion.

32. Although Peng understood that the Sidense single-diffusion memory cell would be larger than Kilopass' 1.5 T memory cell, he failed to appreciate that the overall size of a memory array incorporating those larger memory cells would be much smaller than a comparable Kilopass memory array using 1.5T memory cells since the Sidense memory arrays include far less peripheral decoder circuitry. Peng also failed to appreciate that, while a Sidense single-diffusion memory cell array could be not be built without violating design rules intended to prevent semiconductor device failures, the design rule variation needed by the Sidense device was not subject to the type of failure that the design rule was intended to prevent. These two insights by Sidense, overlooked by Kilopass, have given Sidense technological superiority over Kilopass in the marketplace.

33. Sidense's 2008 emergence as a strong new competitor with a smaller chip area deeply troubled Kilopass, and it began searching for a new CEO who could meet the Sidense competitive challenge.

34. In late 2008, Kilopass found a man with a plan for combatting Sidense – Charlie Cheng – and hired him as its new CEO. Mr. Cheng had prior experience in the embeddable IP industry at startup Lexra whose, like Sidense's embeddable IP technology (albeit microprocessor core technology) competed with IP offerings from its larger, more well-established competitor (MIPS). MIPS had sued Lexra for patent infringement and publicized that lawsuit in the marketplace. On information and belief, customers became concerned about the lawsuit, and stopped purchasing Lexra's product. Moreover, Lexra could not overcome the increased expenses of the lawsuit and reduced revenues, forcing Lexra to settle the litigation on MIPS' terms and change its business. As a result of that settlement, Lexra went out of business.

35. Mr. Cheng saw how he could employ a MIPS-like strategy to destroy Sidense with patent infringement litigation even without a meritorious patent infringement claim. Kilopass hired Mr. Cheng to carry out such a plan against Sidense, and he dutifully did so.

Kilopass Weaponizes the Litigation Process

Kilopass Files And Prosecutes a Sham Patent Infringement Lawsuit Against Sidense

36. Kilopass laid in wait until Sidense was competing for the account of a major customer (Intel) and just had announced raising $5 million in second round venture capital funding.

37. Then, on May 14, 2010, despite the repeated advice from its patent counsel that Sidense did not literally infringe and had "redesigned their memory cell to avoid infringement of [Kilopass'] patents," and absent any competent advice as to infringement by equivalents, Kilopass filed a complaint in federal district court against Sidense asserting that Sidense infringed U.S. Patent No. 6,940,751 ("the '751 patent").

38. On June 18, 2010, Kilopass amended its complaint to add claims for infringement of U.S. Patent Nos. 6, 777,757 and 6,856,540 ("the '757 and '540 patents").

39. Even though Kilopass knew, or should have known, that Sidense did not infringe the '751, '757 and '540 patents, Kilopass actively prosecuted and publicized these infringement claims against Sidense until the Federal Circuit finally resolved them three years later.

40. Kilopass plainly lacked probable cause or good faith belief for its assertion of literal patent infringement. Years before filing suit, Kilopass learned that Sidense's memory cell had only a single diffusion rather than "first and second doped semiconductor regions" as required by the patent claims and, thus, that Sidense did *not* literally infringe.

41. Kilopass also plainly lacked probable cause for the assertion of patent infringement by equivalence since it had no competent evidence of infringement by equivalency, and also because it knew, or should have known, that Sidense did *not* infringe the Kilopass patent under the doctrine of equivalents. In the latter respect, Peng had told Kilopass' CEO, CTO and patent attorney that a single-diffusion memory cell like Sidense's was substantially larger than the two-diffusion memory cell claimed in the Kilopass patents; and MoFo had told Kilopass that infringement by equivalence permitted only an insubstantial difference. Kilopass was well aware of this size difference when it filed its patent infringement claims. Kilopass had no probable cause to assert infringement by equivalence for the further reason that, on information and belief, it never sought or received, let alone reasonably relied upon, competent advice as to how there could be infringement despite this size difference; and despite the irrefutable difference between an insulator and a conductor. Hence, Kilopass' patent infringement lawsuit was objectively baseless.

42. The purpose of Kilopass' sham patent infringement suit was not to win on the merits but to interfere directly with Sidense's actual and prospective business relationships.

43. The district court granted Sidense summary judgment of non-infringement, reasoning that Kilopass ignored "numerous differences" between the asserted claims and the accused Sidense products. Even though Kilopass' patent lawsuit wholly lacked merit, it succeeded in many anticompetitive and detrimental respects. It forced Kilopass' only significant competitor, Sidense, to divert substantial amounts of finite time, resources, money and attention away from developing technology and marketplace competition to defend the lawsuit and respond to customer concerns engendered by Kilopass' aggressive lawsuit publicity. It also scared off

customers for Sidense's technology, and scared away potential new competitors from entering the market.

Kilopass Further Weaponizes The Litigation Process By Making Its Sham Lawsuit As Expensive As Possible

44. Kilopass further weaponized the litigation process by making the sham lawsuit substantially more expensive than necessary. For example, at the outset of the patent infringement lawsuit, Sidense moved to stay the litigation until the outcome of Sidense's petitions for reexamination of the three patents in suit. Kilopass opposed the stay so that the reexaminations and district court costly litigation proceeded in parallel.

45. A stay of the litigation could have, and almost certainly would have, obviated the need for Sidense to expend millions of dollars in patent infringement litigation defense costs. This is because, in March 2012 and November 2011, the patent examiner ruled that two of Kilopass' asserted patents, the '757 and '540 patents, are invalid; and then, on January 6, 2012, Kilopass disavowed the '751 patent's coverage of a claimed wordline/bitline configuration shared by a prior art patent and Sidense's accused memory cell, thereby directly precluding Sidense's infringement of the '751 patent and indirectly precluding Sidense's infringement of the '547 and '540 patents.

46. In addition, when Sidense informed the district court that Kilopass was taking contrary positions as to the wordline/bitline configuration coverage of its '751 patent in the re-examination and litigation, and the district court found that Kilopass had disavowed the '751 patent claim scope necessary to cover Sidense's accused memory cells, Kilopass attempted to introduce a new "fact" in the reexamination record by attempting to retract its disavowal of the '751 patent's coverage in a request for the district court to reconsider its ruling on disavowal. In rejecting that ploy, the district court said "the rule [permitting reconsideration] does not apply where the 'new material fact' is merely a party's attempt to undo a strategic position for which it has been penalized." The district court characterized Kilopass' conduct as "gamesmanship."

47. Nonetheless, by rejecting Sidense's threshold request to stay the litigation to await the outcome of USPTO proceedings, Kilopass succeeded in forcing Sidense to incur millions of dollars in unnecessary litigation costs, and unnecessarily prolonged the baseless and protracted

litigation that had been draining Sidense of the capital needed to compete with Kilopass by increasing litigation expenses and scaring off customers and potential new competitors alike.

48. Moreover, rather than stay, or even scale back its infringement case after the patent examiner had ruled that the '757 and '540 patents are invalid, and after its disavowal of the '751 patent's coverage of the Sidense memory cell, Kilopass continued to press its meritless lawsuit forward. This forced Sidense to incur millions of dollars in unnecessary litigation costs, and unnecessarily prolonged the litigation that was intimidating and scaring off customers and potential new competitors alike.

49. Similarly, rather than abandon its lawsuit in late 2011 after Sidense served contention interrogatory answers explaining in detail why it was impossible for Sidense's memory cell to infringe of any of Kilopass' asserted patent claims, Kilopass instead abandoned its infringement theory and futilely pursued an even more outlandish alternate infringement theory without court permission. When Kilopass belatedly announced its new theory of equivalence more than two years after filing the complaint, the district court rejected it in strong terms, noting that "[t]o avoid summary judgment [], Kilopass has introduced a new theory," which the court rejected because, *inter alia*, it would have rendered the court's disavowal decision "meaningless." The district court said, "Kilopass' assertion of a new theory of equivalence is particularly inappropriate in light of evidence that Kilopass has known for many years that Sidense does not literally infringe its patents." The district court then granted Sidense's motion for summary judgment on three separate grounds each of which is applicable to all claims of all three patents.

50. Similarly, rather than abandon its futile infringement suit following the district court's entry of summary judgment on multiple factual and procedural grounds, Kilopass baselessly filed an appeal on the summary judgment ruling, dragging out the litigation for another year and causing Sidense to incur further litigation expenses, claiming the district court made errors in its ruling, and increasing the litigation expenses. To further increase the litigation expenses, Kilopass even appealed Judge Illston's dismissal of Kilopass's business tort claims despite the fact that Kilopass had voluntarily and unconditionally dismissed those claims. The Federal Circuit summarily denied Kilopass's appeal in a unanimous one word opinion –

"Affirmed."

51. In these ways and others, Kilopass prolonged and expanded the baseless litigation and succeeded in forcing Sidense to run up millions of dollars in unnecessary litigation costs and diversion of executive time.

V. CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF

Actual Monopolization
In Violation of Section 2 of the Sherman Act

52. Sidense hereby repeats and incorporates by reference the allegations made in paragraphs 1 to 51 of this FAC.

53. Section 2 of the Sherman Act makes it unlawful to monopolize, attempt to monopolize, or conspire to monopolize interstate or international commerce. (15 U.S.C. § 2).

54. Sidense has the requisite standing to assert antitrust claims because both Kilopass and Sidense are participants and competitors in the relevant market.

55. By such acts, practices and conduct alleged herein, Kilopass has unlawfully monopolized the relevant market by means of bringing, prosecuting, maintaining and publicizing a sham objectively baseless lawsuit for patent infringement, without probable cause and in bad faith intending to interfere directly with Sidense's actual and prospective business relationships through the use of that lawsuit.

Antitrust Relevant Product and Geographic Markets

56. A relevant market has two components that reflect different dimensions in which marketplace competition occurs: (1) a relevant product market, which identifies products or services that compete with each other, and (2) a relevant geographic market, which identifies the geographic area within which competition in the relevant product market takes place. Whether products are reasonably interchangeable is a fact-intensive inquiry. The fact "that some customers do not view a product as a substitute does not require its exclusion from the relevant market" and "[r]elevant markets need not have precise metes and bounds."

57. The relevant product market for antitrust purposes in this case is no broader than

the market for CMOS embeddable antifuse OTP NVM intellectual property. The relevant geographic market is worldwide. Both Kilopass and Sidense are participants and competitors in the relevant market.

58. Kilopass had at least a 70% share in 2008 in the relevant product market and, on information and belief, Kilopass has maintained and/or grown this share.

59. The relevant product market in this case is consistent with the *Horizontal Merger Guidelines* used by the U.S. Department of Justice and the Federal Trade Commission ("DOJ"), which state that "Market definition focuses solely on demand substitution factors, i.e., on customers' ability and willingness to substitute away from one product to another in response to a price increase or a corresponding non-price change such as a reduction in product quality or service."

60. Common procedure in economic analysis of antitrust markets begins with a hypothetical monopolist and asks whether such a hypothetical monopolist could profitably raise prices by a small but significant amount over time ("SSNIP"). A hypothetical monopolist analysis in this case will demonstrate that the relevant product market is no broader than the market for CMOS embeddable antifuse OTP NVM IP.

61. Embeddable NVM products in the marketplace are based on technologies including antifuse, e-Fuse, embedded flash, floating gate, and ROM. There are relatively large differences in both price and technical specifications among the different embedded NVM technologies. Evidence, including Kilopass publications, demonstrates that a specific technology among these options is selected by customers primarily based on customers' particular technical requirements rather than price. Additionally, customers of embeddable NVM IP technologies are less likely to be sensitive to small but significant non-transitory increases in the price of these products because embeddable NVM is a relatively small component of a larger product, which is the customers' chip or die. For example, Kilopass' Linh Hong testified: "Customers' die can be very expensive. OTP solutions are a very small percentage of the die. So if OTP fails, you have to throw away the whole die."

62. Customers of embeddable NVM will purchase the least expensive product that

meets the customers' specific technical requirements. A customer seeking to purchase embeddable NVM for a die with specific technical requirements that would allow for any NVM technology to be selected would have economic incentives to select e-Fuse because that option is the lowest price option and "almost free." However, if this customer required 1Mbs of memory, then e-Fuse would not be an acceptable option because e-Fuse has been limited to approximately 4Kbs of memory. A hypothetical monopolist could impose a SSNIP on all of the other NVM technologies without the customer substituting back to e-Fuse because e-Fuse does not meet the technical requirements for the customer's die.

63. For example, if a customer's only technical requirement was for low-security embedded NVM, then that customer may consider any of the above referenced NVM technologies; yet if the customer's die required field-programmable low-security NVM, then technologies including ROM and e-Fuse are no longer acceptable substitutes because those technologies do not offer field programmability. Relatedly, if the customer's die required high-security NVM, then antifuse would be the only acceptable NVM technology because it is the only technology offering high-security. As another example, if the customer's die required standard CMOS logic, then embedded flash would not be an acceptable substitute due to additional cost and the requirement of additional mask steps. The market inquiry is focused on the economic substitutionability of technologies not just whether the technologies accomplish a similar function.

64. When considering a hypothetical monopolist in a market that is no broader than CMOS embeddable antifuse OTP NVM IP, it would be able to increase its price without customers substituting to alternative technologies because of relatively large differences in price and features among those technologies. For example, if a customer's die required high security and a hypothetical monopolist imposed a SSNIP (e.g., 5% price increase), customers would not substitute to embedded flash (which costs approximately 30% more than antifuse) or much cheaper alternatives of e-Fuse and ROM because none of those technologies offer high-security and would be unacceptable substitutes irrespective of a change in price. Similarly, a customer requiring OTP specifications would not substitute to multi-time programmable products due to substantial price and technical differences between the technologies.

65. In sum, customers choose NVM products based primarily on technical requirements, then on price. Sales of relatively higher-priced technologies are evidence that customers do not find the lower-priced alternatives to be acceptable or reasonable substitutes, and thus a hypothetical monopolist could impose a SSNIP without losing customers to competition at the specification that drove the customer to the particular NVM technology to begin with.

Direct Evidence of Kilopass' Market Power

66. Monopoly or market power is defined in the disjunctive as the power to control prices or exclude competition in the relevant market. The existence of market power may be proven through direct evidence of supracompetitive prices and restricted output. It may also be inferred from the structure and composition of the relevant market. Market power can also be demonstrated by circumstantial or indirect evidence, and can be presumed where a defendant controls a dominant share of the relevant market.

67. Direct evidence of market power refers to proof of actual detrimental effect on competition, such as a reduction in output or supracompetitive prices. Direct evidence of market power is often the most informative evidence and obviates the need for a more indirect approach of market analysis. In economics, direct evidence can indicate market power independent of analysis of a specific market definition, where successful sustained price increases and/or reduced competition provide strong evidence of market power in some relevant market or markets. Evaluation of direct evidence of market power is sometimes referred to as a "first principles" approach or "direct effects" approach.

68. Direct evidence relating to the market for CMOS embeddable antifuse OTP NVM IP demonstrates that Kilopass possessed and exerted market power by raising prices above competitive levels. As one clear example, Kilopass exerted market power by tethering large increases in Kilopass prices to benchmarks of Kilopass' legal proceedings.

69. In 2010 and 2011, Kilopass established price lists for Sidense licensees that included price increases tied to litigation benchmarks including the *Markman* hearing and verdict.

70. A September 2011 Kilopass price list states that Kilopass would charge *double its list price* for license fees and royalties after a verdict, but that customers could receive discounts

prior to the verdict if the customer agreed to issue a press release that they had converted to Kilopass.

71. Direct evidence also demonstrates that Kilopass intended to exert, and did exert, market power relating to its legal proceedings to reduce competition in the marketplace by converting customers of existing competitors and suppressing competition. Examples include:

72. A December 2006 email from Kilopass' Director of Sales and Director of Marketing states "I believe that Kilopass has already lost in the market … unless we utilize legal intervention to disrupt Sidense's business development progress through legal protections."

73. An October 2008 presentation to the Kilopass Board of Directors states that Kilopass needed a "'virtual monopoly' to reach $100M/yr" and presents a plan for the fourth quarter of 2008 that includes a point to "get ready to sue Sidense."

74. A November 2008 document used in a meeting with the Kilopass Board of Directors states a growth strategy for Kilopass state that includes: "Take out Sidense."

75. A July 2009 email from Kilopass' Vice President of Business Development states "We don't have the cash to kill Sidense, but maybe we can distract them…"

Significant Barriers to Market Entry and Expansion Exist

76. Barriers to entry and expansion are additional considerations in evaluation of market power. In economic terms, barriers to entry are factors in the marketplace that deter entry, such as the necessity to expend significant resources to establish a new enterprise. These expenditures, often referred to as sunk costs, represent investments put at risk by an entrant when it is uncertain whether those sunk costs will be recovered in the future. The greater the sunk costs required to enter a market, the riskier entry becomes and the less likely that existing firms in the market will be challenged. The threat of aggressive behavior by an incumbent firm magnifies the risk of sinking money into entry, further protecting the incumbent and its profits. Other examples of barriers to entry include patents or other licenses, high capital entry costs, control of essential or superior resources, entrenched buyer preferences, and economies of scale.

77. An absence of barriers to entry indicates a contestable marketplace. In a contestable marketplace, "potential entrants can, without restriction, serve the same market

demands and use the same productive techniques as those available to the incumbent firms" and these potential entrants "evaluate the profitability of entry at the incumbent firms' pre-entry prices." When a marketplace is highly contestable, meaning entry costs are "inexpensively reversible" and "the productive techniques and market demands available to incumbents are also freely available to potential entrants," new entrants can profitably enter the marketplace whenever prices are above a competitive level. This threat by potential entrants to freely enter the marketplace when prices are above the competitive level, and to inexpensively exit when the marketplace is no longer profitable, would enforce competitive pricing by incumbent firms in the marketplace.

78. Barriers to expansion are also relevant to evaluation of market power, and relate to the ability of existing competitors to increase output in response to potentially supracompetitive prices. Barriers to market expansion would prevent existing competitors in the marketplace from increasing their own output quickly in response to other factors such as supracompetitive pricing, due to additional sunk costs that would be incurred in expansion activities. Examples of potential barriers to expansion include the amount of time required to produce substantial additional units, limitations on timely access to necessary parts or products, limited supplies of critical inputs, lack of excess capacity, customer acquisition processes, among others.

79. The marketplace for CMOS embeddable antifuse OTP NVM IP has substantial barriers to market entry and expansion that would allow for an incumbent to exert market power including, at least, research and development of commercially viable technology and proving reliability in customer products as part of the customer acquisition process.

80. One barrier in the marketplace for CMOS embeddable antifuse OTP NVM IP is research and development of technology. While antifuse technology has been available for many decades using additional processing steps, it has only more recently been available in standard CMOS. The more recent advanced technologies are proprietary and require sunk cost investments in research and development without any guarantee of a technically viable and commercially acceptable product. While the precise magnitude of sunk costs required to enter the marketplace for CMOS embeddable antifuse OTP NVM IP will differ by firm, the costs to do so are substantial

enough to deter entry by additional competitors. The fact that an incumbent firm has incurred similar sunk costs does not reduce the deterrent effect of necessary sunk costs on new entrants.

81. Another barrier to entry is a relatively long time horizon for proving reliability of the technology to actual and potential customers. Because CMOS embeddable antifuse OTP NVM typically makes up a small portion of a customer's die, a failure of OTP NVM could result in the entire die being defective and a financial loss for the customer. As a result, producers are aware that customers are reluctant to go into high production with NVM technologies without proven reliability. Kilopass acknowledges this barrier to entry in its patent infringement complaint, stating that "To validate these technologies, Kilopass has performed more than thirty different qualification projects… As with any emerging market, the initial pioneering tasks for Kilopass were long, difficult, and often challenged by skeptical customers worried about the viability of the technology and the market acceptance of this new memory storage method." This aspect of the marketplace acts as a barrier to entry.

82. Furthermore, Kilopass' anticompetitive sham patent lawsuit also acted as a barrier to entry with respect to necessary production inputs involving patents, licenses, and intellectual property rights. As discussed, Kilopass' communications purported to the marketplace that Kilopass had ownership over fundamental antifuse technology. Indeed, the marketplace for CMOS embeddable antifuse OTP NVM had no new entrants until after the Federal Circuit summarily affirmed the grant of summary judgment on non-infringement in favor of Sidense.

Kilopass Willfully Maintained and Expanded Its Market Power Through Anticompetitive and Exclusionary Conduct

83. The antitrust laws are concerned with protecting the economic freedom of participants in the relevant market. Indeed, the aims and objectives of the antitrust laws are to encourage innovation, industry, and competition.

84. The antitrust laws seek to promote and protect a competitive marketplace for the benefit of the public. This statute prohibits the acquisition or maintenance of a monopoly by means of exclusionary or predatory conduct.

85. It is unlawful to use market power to foreclosure competition, to gain a competitive

advantage, or to destroy a competitor. Conduct that impairs the opportunities of rivals and either does not further competition on the merits or does so in an unnecessarily restricting way is anticompetitive. A defendant's conduct may be characterized as predatory when the market-dominating defendant is attempting to exclude rivals on some basis other than efficiency.

86. Kilopass' unsuccessful patent infringement lawsuit was objectively baseless because no reasonable litigant could have realistically expected success on the merits. Kilopass was subjectively motivated by a desire to impose collateral anticompetitive injury rather than to obtain a justifiable legal remedy. In sum, Kilopass' patent infringement suit was a mere "sham" to cover what was actually nothing more than an attempt to interfere directly with Sidense's ability to survive in the market and its actual and prospective business relationships with customers. Such exclusionary conduct is not immune/from the antitrust laws and is unlawful. Kilopass initiated and maintained patent infringement litigation against Sidense in bad faith knowing there was no infringement.

87. In granting summary judgment against Kilopass the district court expressly found that Kilopass had "known for many years that Sidense does not literally infringe its patents." Additionally, the district court found in awarding some attorneys' fees and costs to Sidense that Kilopass' claims of patent infringement were "objectively baseless" and "exceptionally meritless." Finally, the district court also found that Kilopass had "engaged in litigation misconduct." As a matter of law, the grant of summary judgment constitutes a favorable termination. Ultimately, the Federal Circuit summarily affirmed the district court's order granting Sidense's motion for summary judgment.

88. None of Kilopass' anticompetitive conduct is immune or protected from scrutiny under the antitrust laws. Kilopass' disinformation campaign is not protected petitioning activity. Kilopass' patent infringement litigation is not immune from antitrust scrutiny because it was a baseless sham. Kilopass brought that case to prevent Sidense from competing and to harm competition in the market, independent of the outcome of the case.

Kilopass' Anticompetitive Conduct Is Not Supported or Excused by Any Legitimate Business Justification

89. Kilopass' anticompetitive conduct is not supported by any legitimate business justification. Any purported justification that may be asserted by Kilopass does not legitimately promote competition and/or is pretextual.

Antitrust Injury -- Harm to Competition, Sidense and Consumers

90. Kilopass' illegal conduct set forth above has caused antitrust injury to competition, Sidense, and consumers in at least the ways listed below.

91. Kilopass' illegal conduct prevented prospective competitors from entering the relevant market.

92. No third party entered the market for CMOS embeddable antifuse NVM OTP IP in competition with Kilopass until one month after the Federal Circuit affirmed Sidense's summary judgment victory in the patent lawsuit.

93. At least one company, eMemory, had investigated entering that market several years earlier, but delayed until after the Federal Circuit found in favor of Sidense.

94. Kilopass' conduct has had a chilling and stifling effect on innovation in embeddable antifuse NVM OTP IP, and has suppressed the development of new competitive technologies.

95. Kilopass' conduct has resulted in supracompetitive prices, with Kilopass tying substantial price increases to milestones in Kilopass' legal proceedings against Sidense.

96. Kilopass' conduct has harmed competition in the market for CMOS embeddable antifuse NVM OTP IP by reducing Sidense's revenues and increasing its expenses, thereby depriving Sidense of the capital needed to advance its technology as needed to compete with Kilopass as integrated circuit feature sizes grew increasingly smaller with advances in semiconductor processing technology. This has resulted in a reduction of output and increased prices in the relevant market.

97. Kilopass' conduct has harmed competition in the market by checking customers

and potential customers, *i.e.* chip designers and chipmakers, from doing business with Sidense out of concern that use of the Sidense technology would cause them and their end user customers to become liable for patent infringement. On information and belief, a "lock-in-effect" has persisted even after the fear of infringement has subsided and has magnified this harm to competition. These factors have reduced output and increased price by similarly depriving those customers of a second product choice with different features such as a desirably smaller die area and a competitive price, thereby reducing output and tending to increase price in the relevant market.

98. Kilopass' conduct has caused customers and potential customers to forego CMOS embeddable antifuse NVM OTP IP from Sidense, thereby reducing Sidense's revenues and causing Sidense to lose profits.

99. Kilopass' conduct has lessened the capital Sidense has had available to compete with Kilopass, *e.g.* to advance its technology as integrated circuit technology has steadily evolved to smaller and smaller feature sizes, thereby causing Sidense a loss of profits and lost windows of technology opportunities.

100. Kilopass' conduct has caused Sidense to incur substantial external costs, which it would not have otherwise incurred, including substantial litigation costs paid out to its attorneys and external vendors, and indemnity payments made to reimburse customers for their expenses in responding to Kilopass' subpoenas.

101. Kilopass' conduct has additionally caused Sidense to incur substantial internal costs which it would not have otherwise incurred, resulting from the time and attention paid by Sidense and its employees to support the litigation, to counteract Kilopass' slanted and stigmatizing lawsuit publicity and anti-Sidense propaganda, and to negotiate and administer its license agreements to specifically deal with customer concerns regarding the Kilopass patent litigation.

102. Beginning in 2010, Sidense has been forced to divert millions of dollars from its business operations to pay attorneys' fees, litigation costs, and experts/consultants to defend against Kilopass' exclusionary conduct.

103. Kilopass' baseless litigation and disinformation campaign has also led actual and

potential Sidense customers to elect not to purchase from Sidense.

104. The antitrust injury described above flows from the anticompetitive and exclusionary aspects of Kilopass' conduct. The legal expenses, attorneys' fees, and costs incurred in defending against a bad faith sham patent infringement litigation constitute antitrust injury which flows from the antitrust wrong.

Damage to Sidense

105. By reason of, and as a direct and proximate result of Kilopass' anticompetitive conduct, and sham litigation, Sidense has suffered, and will continue to suffer, financial injury to its business and property. As a result, Sidense has been deprived of revenues and profits it would have otherwise made, suffered diminished market and technology growth and sustained a loss of goodwill. Sidense's damages include, but are not limited to, the attorneys' fees and other expenses it incurred in defending against Kilopass' sham patent claims that were judicially determined to be "objectively baseless" and "exceptionally meritless."

SECOND CLAIM FOR RELIEF

Attempted Monopolization
In Violation of Section 2 Of The Sherman Act

106. Sidense hereby repeats and incorporates by reference the allegations made in paragraphs 1-51, 54, and 56-105 of this FAC.

107. The requirements of a Section 2 monopolization and attempt to monopolize offense are similar, differing primarily in the requisite intent and the necessary level of monopoly power. The minimum showing of market share required for an attempt claim is a lower quantum than for an actual monopolization case.

108. Kilopass has unlawfully attempted to monopolize the relevant market by means of bringing, prosecuting, maintaining and publicizing a sham objectively baseless lawsuit for patent infringement, without probable cause and in bad faith intending to interfere directly with Sidense's actual and prospective business relationships through the use of that lawsuit. Such unlawful conduct is not immune from or protected by the antitrust laws.

109. Thus, by using baseless patent litigation, which it pursued without probable cause,

Kilopass has attempted to obtain monopoly power over the relevant market not through good business skill or acumen or by other procompetitive conduct, but by means of the previously alleged anticompetitive activities.

110. The relevant product market for antitrust purposes in this case is no broader than the market for CMOS embeddable antifuse OTP NVM intellectual property.

111. The relevant geographic market is worldwide.

112. Significant barriers to market entry and expansion exist.

113. When Kilopass filed the baseless lawsuit for patent infringement, it had at least 70% market share in the relevant market. As a result, Kilopass' conduct as alleged herein has a dangerous probability of acquiring or achieving monopoly power over the relevant market.

114. Kilopass wields the power to exclude competition or control prices in the relevant market.

115. Kilopass intended to acquire monopoly power in the relevant antifuse market, and its CEO knew how to use baseless patent infringement litigation to achieve that goal.

116. Kilopass acted with the specific intent to destroy or eliminate competition and/or to control prices in the relevant market.

117. Sidense has the requisite standing to assert antitrust claims because both Kilopass and Sidense are participants and competitors in the relevant market.

118. Sidense had been Kilopass' only significant competitor in the market for CMOS embeddable antifuse NVM OTP IP since about 2008. Thus, Kilopass knew that if it could cripple or destroy Sidense, it would have a virtual monopoly.

119. Kilopass' anticompetitive conduct is not supported by any legitimate business justification. Any purported justification that may be asserted by Kilopass does not legitimately promote competition and/or is pretextual.

120. Kilopass' illegal conduct has caused antitrust injury to competition, Sidense, and consumers. The antitrust injury described above flows from the anticompetitive and exclusionary aspects of Kilopass' conduct. The legal expenses, attorneys' fees, and costs incurred in defending a bad faith sham patent infringement litigation constitute antitrust injury which flows from the

antitrust wrong.

121. By reason of, and as a direct and proximate result of Kilopass' anticompetitive conduct, and sham litigation, Sidense has suffered, and will continue to suffer, financial injury to its business and property. As a result, Sidense has been deprived of revenues and profits it would have otherwise made, suffered diminished market and technology growth and sustained a loss of goodwill. Sidense's damages include, but are not limited to, the attorneys' fees and other expenses it incurred in defending against Kilopass' sham patent claims that were judicially determined to be "objectively baseless" and "exceptionally meritless."

PRAYER FOR RELIEF

WHEREFORE, Sidense asks this Court to enter judgment against Kilopass, its subsidiaries, affiliates, agents, servants, employees, attorneys and all persons in active concert or participation with them, granting Sidense the following relief:

1. A finding that Kilopass has engaged in predatory and/or exclusionary conduct in violation of Section 2 of the Sherman Act.

2. A judgment in Sidense's favor and against Kilopass, in an amount, which the evidence will show Sidense has sustained as a result of its being injured in its business and property as a result of Kilopass' violations of the antitrust laws, including an award of treble damages, all as provided under Section 4 of the Clayton Act (15 U.S.C. § 15).

3. An injunction against each of the unlawful practices alleged.

4. An award to Sidense of the costs of suit, including its reasonable attorneys' fees.

5. An award of damages pursuant to Section 4 of the Clayton act, for violation of Section 2 of the Sherman Act; and

6. Such other and further relief as this Court and/or a jury may deem proper and just.

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Dated: August 24, 2015

Respectfully submitted,

KILPATRICK TOWNSEND & STOCKTON LLP

BLECHER COLLINS PEPPERMAN & JOYE, P.C.

By: */s/ Roger L. Cook*

ROGER L. COOK
Attorneys for Plaintiff
Sidense Corp.

DEMAND FOR JURY TRIAL

Plaintiff Sidense hereby demands a trial by jury of all issues triable by jury pursuant to Federal Rule of Civil Procedure 38(b) and Civil Local Rule 3-6(a).

Dated: August 24, 2015

Respectfully submitted,

KILPATRICK TOWNSEND & STOCKTON LLP

BLECHER COLLINS PEPPERMAN & JOYE, P.C.

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